

# **Information Paper**

## Dam Safety: Red River of the North: Homme Dam and Reservoir, North Dakota



This aerial view looks upstream of the existing Homme Dam.

#### Contact

Tom Heyerman, project manager (651) 290-5432 (651) 290-5258 (fax) cemvp-pm@usace.army.mil or thomas.a.heyerman@mvp02.usace.army.mil

### Location/Description

Homme Dam is located in Walsh County in northeastern North Dakota, on the South Branch of the Park River, at river mile 62.1 above the main stem's confluence with the Red River of the North, upstream of the cities of Park River and Grafton, N.D. The project was first placed in operation on December 1, 1950. The existing project consists of a compacted earth-fill embankment, a reinforced concrete fixed-crest spillway, and a sluice-gated low-flow conduit located at the base of the dam. The project is operated and maintained by the federal government, except for a water supply line, which is maintained by the city of Park River. The original project construction was co-sponsored by the cities of Park River and Grafton, N.D.

#### **Status**

Construction plans and specifications were prepared by an A/E (architect/engineer) firm and were completed in December 1999. A construction contract was awarded in May 2000 to Park Construction and it is scheduled for completion in late 2002.

#### Additional

A reconnaissance report, dated February 15, 1994, was completed under the Dam Safety Assurance Program. The report recommended adding a new spillway to increase the dam's discharge capacity from 44 percent of the Probable Maximum Flood (PMF) to 100 percent of the PMF. The Assistant Secretary of the Army (Civil Works) approved this report on August 25, 1994. The St. Paul District was instructed to proceed with detailed design on September 6, 1994. During further investigation, the district determined that the existing spillway was not reliable. Both high uplift pressures and material voids under the spillway indicated there was a seepage path through the dam. During the fall of 1995, the district conducted a void investigation. The investigation concluded that the drain system under the spillway was not functioning and extensive reconstruction would be required to rehabilitate it. Because of the cost of rehabilitating the structure, the district determined that a more cost-effective plan would be to relocate the spillway. The current plan calls for a new spillway in the existing embankment and removal of the existing structure.

#### Authority

Congress authorized the Park River Project in the Flood Control Act of December 22, 1944. The Chief of Engineers approved the Definite Project Report on August 28, 1947. Public Law 435 re-designated the Park River project as Homme Dam on March 5, 1948.

#### Fiscal

Project design and construction cost are to be cost shared between the federal government and the local sponsors, Grafton and Park River. Operation and maintenance costs are 100 percent federal.

Estimated federal cost \$12,400,000 Estimated non-federal cost 85,000 Total \$12,485,000